Use of Sound Program Management and Oversight Practices Is Needed to Avoid Repeating Past Problems

Why GAO Did This Study

TSA conducts security threat assessment screening and credentialing activities for millions of workers and travelers in the maritime, surface, and aviation transportation industries that are seeking access to transportation systems. In 2008, TSA initiated the TIM program to enhance the sophistication of its security threat assessments and to improve the capacity of its supporting systems. However, the program experienced significant cost and schedule overruns, and performance issues, and was suspended in January 2015 while TSA established a new strategy. The program was rebaselined in September 2016 and is estimated to cost approximately $1.27 billion and be fully operational by 2021 (about $639 million more and 6 years later than originally planned).

GAO was asked to review the TIM program's new strategy. This report determined, among other things, the extent to which (1) TSA implemented selected key practices for transitioning to Agile software development for the program; and (2) TSA and DHS are effectively overseeing the program's cost, schedule, and performance. GAO compared program documentation to key practices identified by the Software Engineering Institute and the Office of Management and Budget, as being critical to transitioning to Agile and for overseeing and governing programs.

What GAO Found

The Transportation Security Administration's (TSA) new strategy for the Technology Infrastructure Modernization (TIM) program includes using Agile software development, but the program only fully implemented two of six leading practices necessary to ensure successful Agile adoption. Specifically, the Department of Homeland Security (DHS) and TSA leadership fully committed to adopt Agile and TSA provided Agile training. Nonetheless, the program had not defined key roles and responsibilities, prioritized system requirements, or implemented automated capabilities that are essential to ensuring effective adoption of Agile. Until TSA adheres to all leading practices for Agile implementation, the program will be putting at risk its ability to deliver a quality system that strengthens and enhances the sophistication of TSA's security threat assessments and credentialing programs.

TSA and DHS fully implemented one of the key practices for overseeing the TIM program, by establishing a process for ensuring corrective actions are identified and tracked. However, TSA and DHS did not fully implement the remaining three key practices, which impede the effectiveness of their oversight. Specifically,

- TSA and DHS documented selected policies and procedures for governance and oversight of the TIM program, but they did not develop or finalize other key oversight and governance documents. For example, TSA officials developed a risk management plan tailored for Agile; however, they did not update the TIM system life-cycle plan to reflect the Agile governance framework they were using.

- The TIM program management office conducted frequent performance reviews, but did not establish thresholds or targets for oversight bodies to use to ensure that the program was meeting acceptable levels of performance. In addition, department-level oversight bodies have focused on reviewing selected program life-cycle metrics for the TIM program; however, they did not measure the program against the rebaselined cost, or important Agile release-level metrics.

- TIM's reported performance data were not always complete and accurate. For example, program officials reported that they were testing every line of code, even though they were unable to confirm that they were actually doing so, thus calling into question the accuracy of the data reported.

These gaps in oversight and governance of the TIM program were due to, among other things, TSA officials not updating key program management documentation and DHS leadership not obtaining consensus on needed oversight and governance changes related to Agile programs. Given that TIM is a historically troubled program and is at least 6 months behind its rebaselined schedule, it is especially concerning that TSA and DHS have not fully implemented oversight and governance practices for this program. Until TSA and DHS fully implement these practices to ensure the TIM program meets its cost, schedule, and performance targets, the program is at risk of repeating past mistakes and not delivering the capabilities that were initiated 9 years ago to protect the nation’s transportation infrastructure.

What GAO Recommends

GAO is making 14 recommendations, including that DHS should prioritize requirements and obtain leadership consensus on oversight and governance changes. DHS concurred with all 14 recommendations.

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